



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/600,796

06/20/2003

Paul B. Wilson

P01003US2A

9688

7590

08/11/2004

Michael R. Huber
BRIDGESTONE AMERICAS HOLDING, INC.
1200 Firestone Parkway
Akron, OH 44317

EXAMINER

JENKINS, JERMAINE L

ART UNIT

PAPER NUMBER

2855

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/600,796	Applicant(s) WILSON, PAUL B.	
	Examiner Jermaine Jenkins	Art Unit 2855	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5-7, 12, 13, 15 & 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Haaf et al (DE 10040647).

In regards to claims 1 & 5-7, Haaf et al teaches a monitoring device for tires having a body (5, being read as a fender) capable of being positioned adjacent a pneumatic tire (3) that is at least partially fabricated from a tire material, and a sensor (6) carried by the body (5); the sensor (6) being configured to detect airborne molecules (being read as gas) generated when the tire material of the pneumatic tire is overheated (Page 4).

With respect to claims 2 & 3, Haaf et al teaches wherein the body (5) defines an opening with the sensor (6) being in fluid communication with the opening (9, being read as region), and wherein the body (5) has an outer surface and the sensor (6) is disposed at the outer surface of the body (See Figure 1).

In regards to claims 12, 13, 15, Haaf et al teaches a monitoring device for tires having the vehicle (being read as a truck) having a plurality of pneumatic tires (3), each of the pneumatic tires (3) being fabricated from a tire material, the monitoring device being carried by the vehicle adjacent at least one of the tires (3); and the monitoring

Art Unit: 2855

device having a sensor (6) configured to detect airborne molecules (being read as gas) generated when the tire material of the pneumatic tire is overheated (Page 4; See Figures 1 & 2).

With respect to claim 16, Haaf et al teaches the steps of sensing the concentration of airborne molecules generated when the tire material of the pneumatic tire is overheated and creating an indication signal when the sensor detects a concentration of airborne molecule that meets a predetermined limit (Pages 5 & 6; See Figure 3).

3. Claims 10 & 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Metzger et al (5,071,259).

In regards claim 10, Metzger et al teaches a tire sensing system having the pneumatic tire (2) being fabricated from a tire material; the monitoring device (10, being read as a sensor) having pneumatic tire (2); and a sensor (10) exposed to the chamber of the sensor being configured to detect airborne molecules (being read as air pressure) generated when the tire material of the pneumatic tire (2) is overheated (Abstract; Column 2, lines 59-64; See Figure 1).

With respect to claim 11, Metzger et al teaches a tire sensing system having a rim (11), the pneumatic tire (2) being mounted on the rim (11), and the monitoring device (10) being carried by the rim (11) (Column 2, lines 45-48; See Figure 1a).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2855

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4 & 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haaf et al (DE 10040647).

With respect to claim 4 & 5, Haaf et al teaches the claimed invention except for wherein the sensor is carried by a body adapted to be hand-held and moved adjacent pneumatic tires by a user and wherein the body carrying the sensor is adapted to be hand-held and moved adjacent pneumatic tires by a user. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make a body adapted to be hand-held or the sensor being adapted to be hand-held, since it has been held that making an old device portable or movable without producing any new and unexpected result involves only routine skill in the art. *In re Lindberg*, 93 USPQ 23 (CCPA 1952). Therefore the ability of the sensors to detect airborne molecules would still be performed whether the two structures are adapted to be hand-held or not.

6. Claims 8 & 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haaf et al (DE 10040647) in view of Metzger et al (5,071,259).

With respect to claim 8, Haaf et al teaches the claimed invention except for the sensor being exposed to the inner chamber of the pneumatic tire.

Metzger et al teaches a sensor (10) being exposed to the inner chamber of the pneumatic tire (2) (Abstract; Column 2, lines 59-64; See Figure 1). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to place the sensor into the inner chamber of the tire as taught by Metzger et al in

Art Unit: 2855

the sensing system of Haaf et al for the purpose of increasing the accuracy of measurements of the entire tire.

With respect to claim 9, Haaf et al teaches the claimed invention except for wherein the sensor is one of a LED-type, a catalytic-type, an electrochemical-type, and Metallic Oxide Semiconductor-type sensor.

Metzger et al teaches a sensor in the form of semiconductors (Column 2, lines 59-64). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to manufacture the sensor into any type of well-known semiconductor material, such as metallic oxide, etc., as taught by Metzger et al into the system of Haaf et al for the purpose of being readily available and easy to manufacture.

Allowable Subject Matter

7. Claim 14 is allowed.

8. The following is a statement of reasons for the indication of allowable subject matter: The prior art does not disclose or suggest the vehicle gate adapted to allow a target vehicle to drive through the gate; the target vehicle having a plurality of pneumatic tires each of the pneumatic tires being fabricated from a tire material, the monitoring device having a sensor being carried by the vehicle gate at sensor position, the sensor position adapted to cause at least a portion of the pneumatic tires of the target vehicle to pass adjacent the sensor when the target vehicle passes through the vehicle gate, and the sensor configured to detect airborne molecules generated when the tire material of the pneumatic tire is overheated.

Art Unit: 2855


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jermaine Jenkins whose telephone number is 571-272-2179. The examiner can normally be reached on Monday-Friday 8am-430pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jermaine Jenkins
A.U. 2855


EDWARD LEFKOWITZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800